

IN THE CLAIMS:

1. (currently amended) A metal carrying sleeve for continuous printing a transfer forms, the carrying sleeve consisting essentially of:

a rectangular, thin-walled flat metal sheet, that is bent to a desired fellow hollow cylindrical form so that two edges of the flat sheet face one another;

a metal weld seam that permanently connects together only the facing edges of the sheet so that the sheet is expandable and slidable onto a printing cylinder via pressurized air, the weld seam having an initial crowned configuration formed by deposit welding following an initial welding of the base plate edges; and

a homogeneous, continuous and uniform outer circumferential metal surface including the weld seam and formed by processing the surface and the crowned configuration of the weld seam so that one of format variable continuous printing is possible and a layer is placeable on the entire outer circumferential surface, including the weld seam.

2. (original) A carrying sleeve as defined in claim 1, wherein the thin-walled flat sheet is made of aluminum.

3. (original) A carrying sleeve as defined in claim 1, wherein the circumferential surface, including the seam, is chemically roughened and anodized, and further comprising a photosensitive coat on the roughened anodized surface.

4. (original) A carrying sleeve as defined in claim 1, and further comprising a water-conducting coat on the outer surface, including the seam.

5. (original) A carrying sleeve as defined in claim 1, and further comprising an engraved copper coat on the entire outer surface, including the seam.

6. (original) A carrying sleeve as defined in claim 1, and further comprising an endless rubber coat that covers the entire surface, including the seam.

7. (original) A carrying sleeve as defined in claim 1, wherein the carrying sleeve is configured to directly carry a flexible printing form for flexographic printing.

8. (previously presented) A process for producing a carrying sleeve for printing and transfer forms, which sleeve is slidable onto a printing cylinder by expansion by pressurized air, comprising the steps of:

cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder;

bending the base plate into a desired cylindrical form so that two edges of the base plate face one another;

permanently connecting together the two edges of the base plate with a welded metal seam that has an outwardly directed crown and so that the cylindrical base plate is expandable by pressurized air so that it can be slid onto the printing cylinder, wherein the crown is formed by deposit welding following an initial welding of the base plate edges; and

processing the crown and an outer surface of the sleeve to form a homogeneous, uniform continuous outer surface formed of the outer sleeve surface and the weld seam so that format variable continuous printing is possible on the entire continuous outer surface.

9.-11. (previously canceled)

12. (previously presented) A process for producing an offset printing form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms, which sleeve is slidable onto a printing cylinder by expansion with pressurized air, by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder;

bending the base plate into a desired cylindrical form so that two edges of the base plate face one another;

permanently connecting together the two edges of the base plate with a welded metal seam that has an outwardly directed crown and so that the cylindrical base plate is expandable by pressurized air so that it can be slid onto the printing cylinder, wherein the crown is formed by deposit welding following an initial welding of the base plate edges; and

processing the crown and an outer surface of the sleeve to form a homogeneous, continuous and uniform outer surface formed of the outer sleeve surface and the weld seam, the processing step including chemically roughening and anodizing the hollow cylindrical form of the base plate and subsequently providing a photosensitive coating on the outer surface of the cylindrical form so as to create a printing form sleeve for format variable continuous printing.

13. (original) A process as defined in claim 12, wherein the base plate is made of aluminum.

14. (previously presented) A process for producing a gravure printing form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms, which sleeve is slidable onto a printing cylinder by expansion with pressurized air, by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder, bending the base plate into a desired cylindrical form so that two edges of the base plate face one another, permanently connecting together the two edges of the base plate with a welded metal seam that has an outwardly directed crown and so that the cylindrical base plate is expandable by pressurized air so that it can be slid onto the printing cylinder, wherein the crown is formed by deposit welding following an initial welding of the base plate edges, processing the crown and an outer surface of the sleeve to form a homogeneous, continuous and uniform outer surface formed of the outer sleeve surface and the weld seam; and

applying a metal coat to the processed outer surface and then mechanically processing the metal coat.

15. (original) A process as defined in claim 14, wherein the step of applying a metal coat includes applying a copper alloy to the outer surface of the cylinder form.

16. (previously presented) A process for producing a transfer form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms, which sleeve is slidable onto a printing cylinder by expansion with pressurized air, by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder, bending the base plate into a desired cylindrical form so that two edges of the base plate face one another, permanently connecting together the two edges of the base plate with a welded metal seam that has an outwardly directed crown and so that the cylindrical base plate is expandable by pressurized air so that it can be slid onto the printing cylinder, wherein the crown is formed by deposit welding following an initial welding of the base plate edges, processing the crown and an outer surface of the sleeve to form a homogeneous, continuous and uniform outer surface formed of the outer sleeve surface and the weld seam; and

applying an endless rubber coating to the entire processed sleeve surface.

17. (previously presented) A process for producing a printing form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms, which sleeve is slidable onto a printing cylinder by expansion with pressurized air, by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder, bending the base plate into a desired cylindrical form so that two edges of the base plate face one another, permanently connecting together the two edges of the base plate with a welded metal seam that has an outwardly directed crown and so that the cylindrical base plate is expandable by pressurized air so that it can be slid onto the printing cylinder, wherein the crown is formed by deposit welding following an initial welding of the base plate edges, processing the crown and an outer surface of the sleeve to form a homogeneous, continuous and uniform outer surface formed of the outer sleeve surface and the weld seam; and

applying an endless ceramic coat to the entire processed sleeve surface.